

What is claimed is:

1. A method for treating a patient suffering from a neoplastic or infectious disease, comprising:

administering an effective amount of monocyte derived cells and an effective amount of chemotherapy drugs to said patient.

2. The method according to claim 1, wherein said monocyte derived cells and chemotherapy drugs are administered simultaneously.

3. The method according to claim 1, wherein the chemotherapy drug is selected from the group consisting of anthracyclins, daunorubicin, adriamycin, taxoter derivatives, vinca alcaloids, vincristine, taxol, carmustine, cisplatin, fluorouracils, polyamine inhibitors, topoisomerase inhibitors, tamoxifene, prodasone, sandostatine, sodium butyrate, mitomycin C, penicillins, β -lactamines, cephalosporines, cyclines, aminoglucosides, macrolides, sulfamides, AZT, protease inhibitors, acyclovir, retrovir and foscarnet.

4. The method according to claim 1, wherein the monocyte derived cells and the chemotherapy drugs are in the form of an injectable solution.

5. The method according to claim 1, further comprising:

a) recovering blood derived mononuclear cells directly from blood apheresis or from blood bag collection, followed by

centrifugation, to eliminate red blood cell granulocytes and platelets, and to collect peripheral blood leukocytes;

b) washing peripheral blood leukocytes obtained at the preceding steps by centrifugation to remove platelets, red blood cells and debris to obtain mononuclear cells;

c) resuspending the mononuclear cells obtained in the preceding step in a culture medium, and

d) culturing said cells of preceding step for 5 to 10 days to obtain monocyte derived cells and contaminating lymphocytes.

6. The method according to claim 1, wherein said monocyte derived cells have been cultured for 5 to 10 days.

7. A method for the simultaneous, separate, or sequential administration of a preparation for the treatment of cancer or infectious disease in a patient, comprising:

administering to said patient an effective amount of said preparation, wherein said preparation comprises the following components:

monocyte derived cells, and

chemotherapy drugs.

8. The method according to claim 7, wherein said monocyte derived cells and chemotherapy drugs are administered simultaneously.

9. The method according to claim 8, wherein the monocyte derived cells are administered repeatedly up to ten times, with an

interval between each administration being between three days to two months.

10. The method according to claim 7, wherein the chemotherapy drug is administered at a dose of 0.1 to 1000 mg/day.

11. The method according to claim 8, wherein said drug is selected from the group consisting of cytotoxic compounds, cytostatic compounds, and compounds inducing apoptosis or cytokines, wherein said drug is administered at a dose of 0.1 to 100 mg/day.

12. The process according to claim 11, wherein the chemotherapy drug is administered repeatedly up to 10 times, with interval between each administration being between one day to two months.

13. The method according to claim 7, wherein the chemotherapy drug and the monocyte derived cells are administered sequentially with said chemotherapy drug being administered before the monocyte derived cells.

14. The method according to claim 13, wherein the interval of time between the administration of the monocyte derived cells and the administration of the chemotherapy drugs is one day to two months.

15. The method according to claim 7, wherein the monocyte derived cells and the chemotherapy drug are administered sequentially with the monocyte derived cells being administered before the chemotherapy drug.

16. The method according to claim 7, wherein the monocyte derived cells are administered before the administration of a vaccine directed to a tumor or infectious antigen.

17. The method according to claim 16, wherein the administration of the monocyte derived cells is preceded by chemotherapy.

18. The method according to claim 15, wherein the interval of time between the administration of the chemotherapy drug and the administration of the monocyte derived cells is one day to two months.

19. The method according to claim 7, further comprising:

a) recovering blood derived mononuclear cells directly from blood apheresis or from blood bag collection, followed by centrifugation, to eliminate red blood cell granulocytes and platelets, and to collect peripheral blood leukocytes;

b) washing peripheral blood leukocytes obtained at the preceding steps by centrifugation to remove platelets, red blood cells and debris to obtain mononuclear cells;

c) resuspending the mononuclear cells obtained in the preceding step in a culture medium, and

d) culturing said cells of preceding step for 5 to 10 days to obtain monocyte derived cells and contaminating lymphocytes.

20. The method according to claim 7, wherein said monocyte derived cells have been cultured for 5 to 10 days.